

Fig. 1

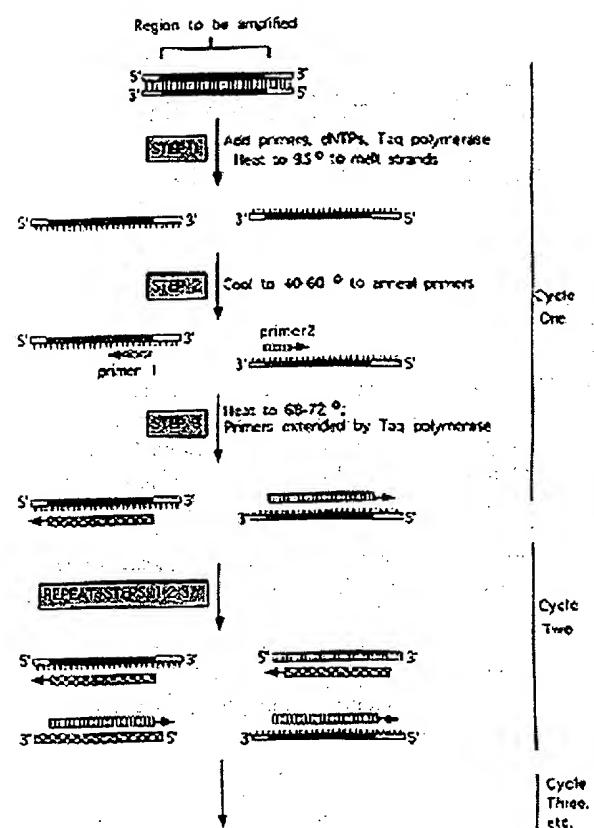


Fig. 2

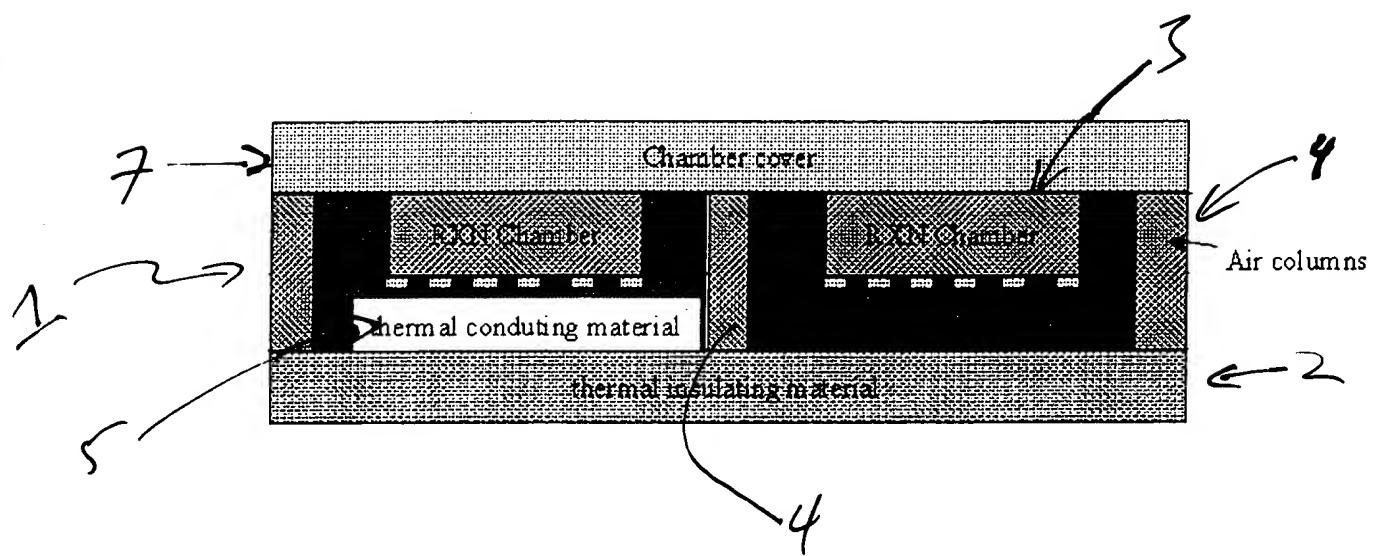
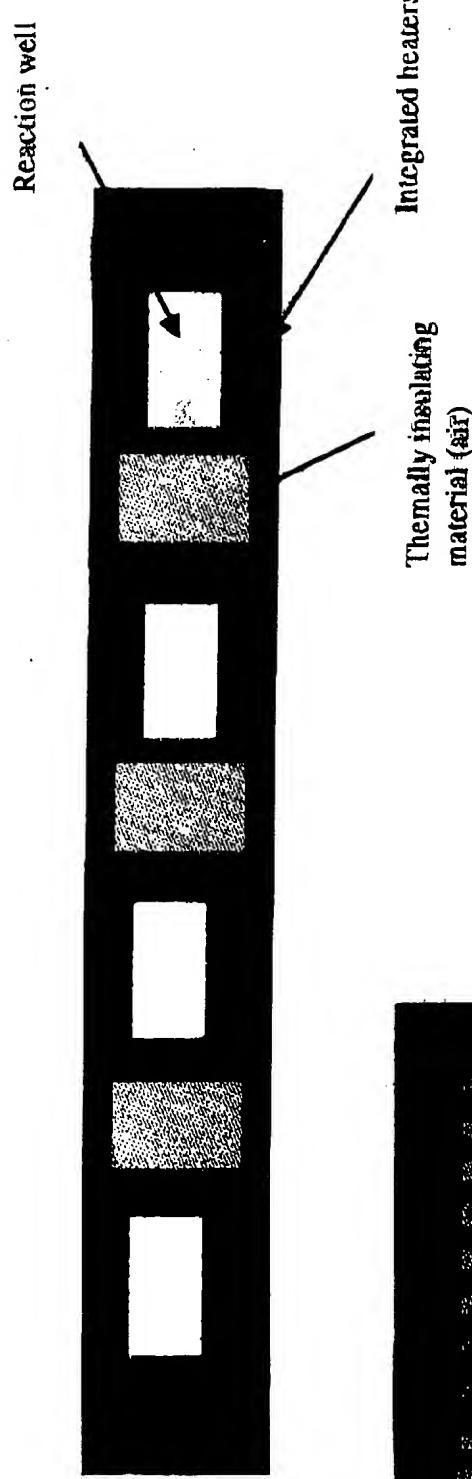
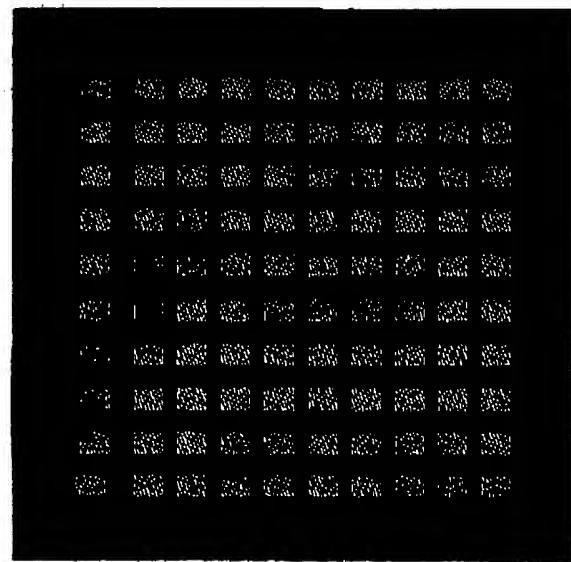


Fig. 3

Microchip PCR Array



- Integrated & independent heaters
- Multiple sample parallel testing (high throughput)



Example of column - row addressing

Ceramic micro-PCR Heater Array-Final Design

Fig. 4A
4 X 4 Array of Reaction Wells
with Embedded Heaters and
an Embedded RTD

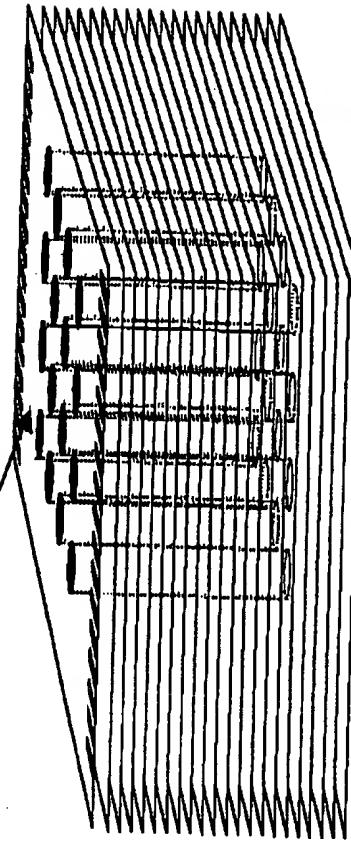


Fig. 4B

Fig. 4B

Device Anatomy

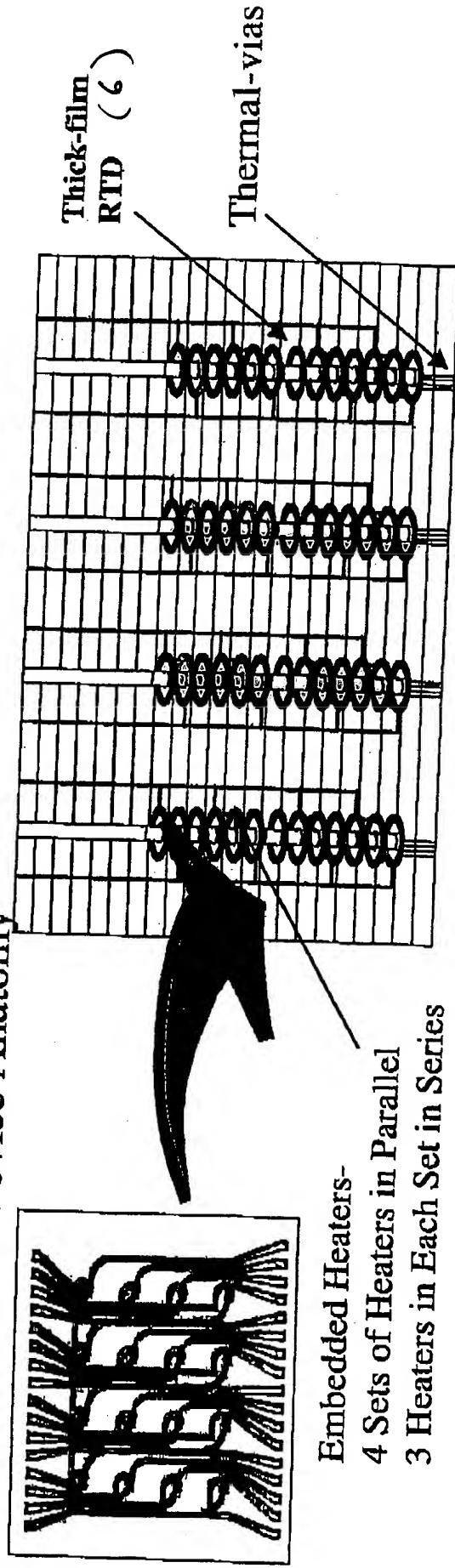


Fig. 5

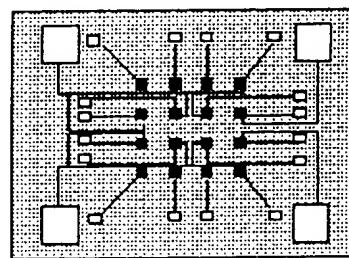
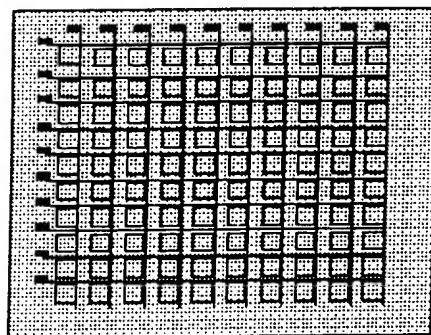
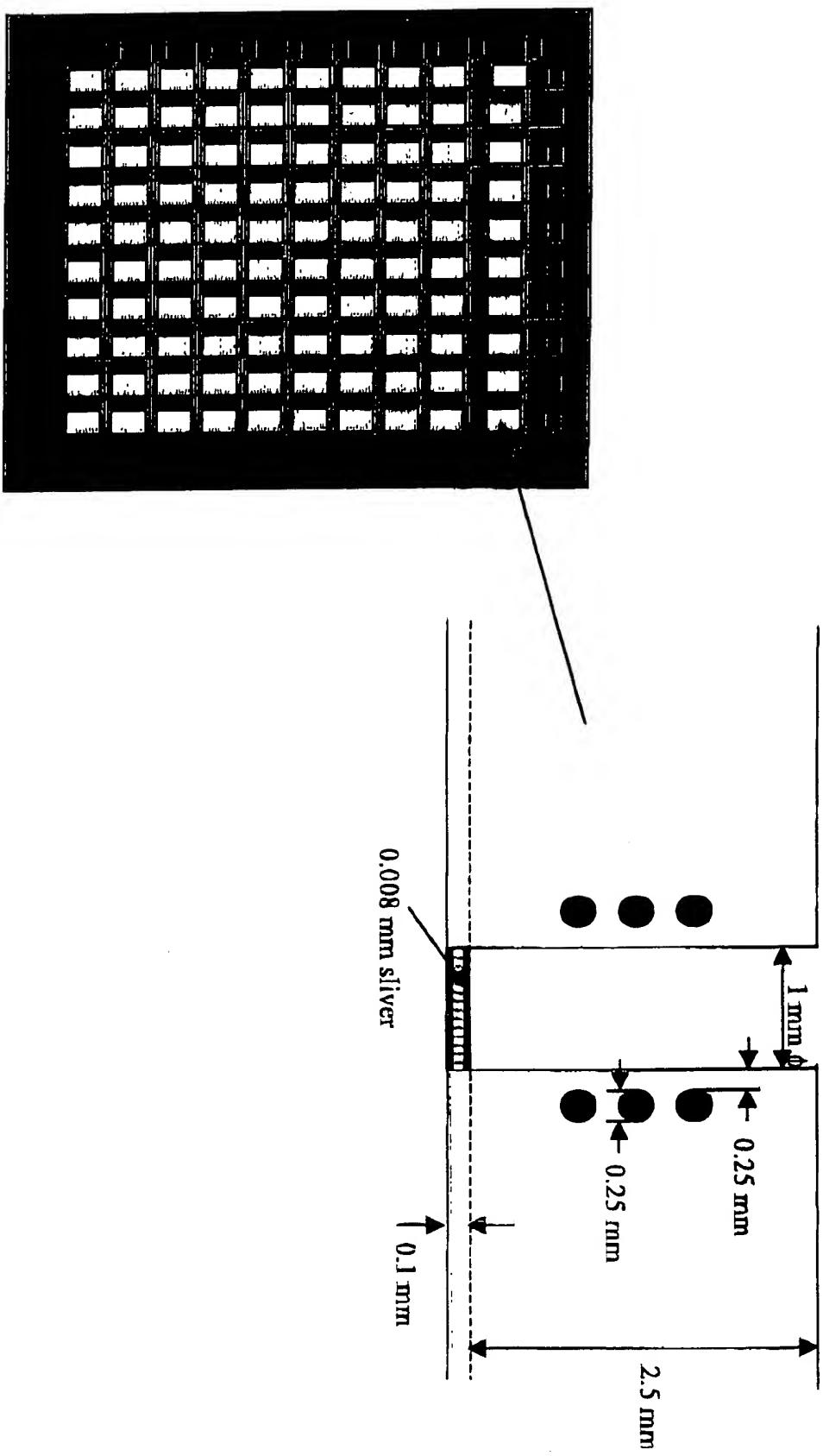


Fig. 6

**Schematic of Array with Integrated
Heaters with Active Cooling**

Fig. 7



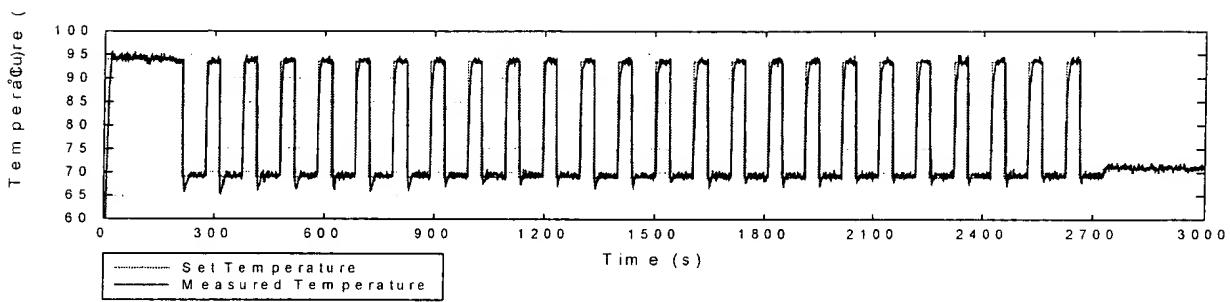


Fig. 8A

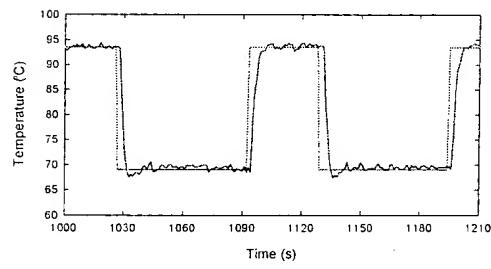


Fig. 8B

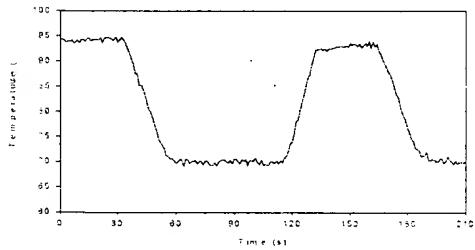


Fig. 8C

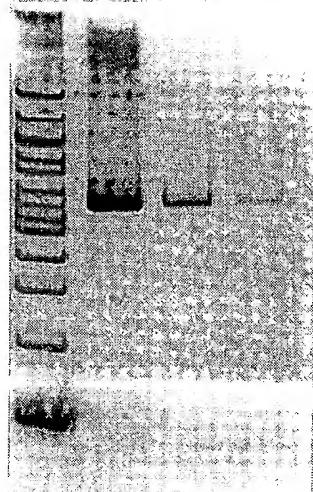


Fig. 9